

cians' cost estimates for commonly prescribed drugs. In fact, physicians' with inaccurate cost estimates were more likely to be comfortable with both GSPs and RDPs. Physicians have explicit opinions regarding the clinical and economic ramifications of GSPs and RDPs, and these opinions should be considered in planning and communicating drug policies.

#### PHP9

##### **SUMMARY OF THE FIRST YEAR OF A DISEASE MANAGEMENT PROGRAM IN PATIENTS WITH BLEEDING DISORDERS**

Tencer T<sup>1</sup>, Shapiro A<sup>2</sup>, Roberson C<sup>2</sup>, Johnson KA<sup>1</sup>

<sup>1</sup>University of Southern California, Los Angeles, CA, USA, <sup>2</sup>Indiana Hemophilia and Thrombosis Center, Indianapolis, IN, USA

**OBJECTIVE:** To assess the cost and outcomes of a disease management program (DMP) for the bleeding disorder population insured by a state insurance plan. **METHODS:** All bleeding disorder patients covered by the plan were enrolled into a DMP administered by the Indiana Hemophilia & Thrombosis Center (IHTC). A pre/post intervention study design was used, with a prior year serving as the baseline period and 1-year post enrollment as the study period. Claims data were used to assess hospitalizations, ER visits, total medical costs and factor costs. Medical records were used to assess disease severity and other co-morbidities. T-tests and a regression analysis were used to assess the impact of the DMP. **RESULTS:** Thirty continuously enrolled patients had complete data. Due to the small sample size and large variability in costs found in this population, none of the analyses reached statistical significance. Approximately 90% of the population was male, 87% with hemophilia A. The average cost of care in the baseline year and follow-up year were \$110,637 and \$111,329 respectively ( $p = 0.99$ ). Although factor use increased by 29,625 units ( $p = 0.46$ ), and accounted for 90.4% and 96.9% of costs, baseline versus first year respectively, the mean number of inpatient hospital days and ER visits decreased from 1.36 and 1.6 to 0.43 ( $p = 0.12$ ), and 0.43 ( $p = 0.23$ ) respectively. The average total cost for patients who switched to the DMP during the study period decreased from \$136,725 to \$97,557 ( $p = 0.40$ ) from baseline. **CONCLUSION:** Although the DMP did not appear to statistically decrease total costs, costs were contained even as factor utilization increased. Additionally, there was a trend toward lower inpatient hospital days and ER visits. Further enrollment may increase statistical power and a longer study period will be used to completely assess the impact of the DMP.

#### PHP10

##### **CHARACTERISTICS OF SENIORS WITH HIGH ANNUAL PRESCRIPTION DRUG EXPENDITURES: FINDINGS FROM THE 2002 AND 2003 MEDICAL EXPENDITURE PANEL SURVEY**

Daniel GW, Malone DC

University of Arizona, Tucson, AZ, USA

**OBJECTIVE:** The Medicare Modernization Act of 2003 requires drug plan sponsors to provide medication therapy management (MTM) programs to beneficiaries with 1) annual drug expenditures above \$4000; 2) multiple comorbidities; and 3) multiple prescription drugs. The purpose of this study was to obtain nationally representative estimates of the proportion of seniors who met the expenditure criteria and identify risk factors for high annual drug expenditures. **METHODS:** Prescribed medicines and demographic data came from the 2002 and 2003 Medical Expenditure Panel Survey (MEPS) for respondents  $\geq 65$  years of age. Survey-weighted logistic regression identified risk factors for high drug expenditures. Candidate variables included age, gender, race, income, education, marital status, functional limitations, health status, presence of chronic conditions, body

mass index (BMI), and medical and prescription drug insurance. Standard errors (SEs) were adjusted for complex survey design and expenditures were adjusted to 2003 U.S. dollars. Annual expenses of \$3810 in 2003 were deemed equivalent to \$4000 in 2005. **RESULTS:** An estimated 9.2% ( $SE \pm 0.4\%$ ) of 36 million seniors over 2002 and 2003 incurred more than \$3810 annual drug expenditures, accounting for 35% of \$55.3 billion in drug expenditures among all seniors. Respondents with high drug expenditures reported 10.8 ( $\pm 0.2$ ) unique medications with 77.9% ( $\pm 1.9\%$ ) reporting  $\geq 8$  medications; all had  $\geq 3$  medications. These respondents also had 5.2 ( $\pm 0.1$ ) chronic conditions; 60.5% ( $\pm 2.3\%$ ) had  $\geq 4$  conditions. Diabetes, hyperlipidemia, depression, and cardiac disease significantly increased the risk of high drug expenditures. Other significant risk factors included receiving help with activities of daily living (ADLs), housework limitations, high BMI, fair/poor health, and total number of chronic diseases. **CONCLUSION:** Respondents with drug expenditures exceeding the MTM threshold obtain significantly more drugs and have a higher disease burden than those with lower drug expenditures. Characteristics other than the number and type of medications can be used to identify candidates for MTM programs.

#### PHP11

##### **PRESCRIPTION PATTERNS OF POTENTIALLY INAPPROPRIATE MEDICATIONS AMONG OLDER MEDICARE MANAGED CARE BENEFICIARIES**

Bonnet PQ, Yip JY, Leung M

SCAN, Long Beach, CA, USA

**OBJECTIVES:** This study examined the prevalence and patterns of inappropriate medication use among older Medicare managed care beneficiaries enrolled in a Southern California Social Health Maintenance Organization. **METHODS:** The administrative datasets used for the analysis contained demographics, enrollment information, pharmacy claims, inpatient and outpatient utilization for approximately 75,000 older Medicare beneficiaries. The analytical sample included 47,978 members with continuous enrollment from July 1st 2004 to June 30th 2005. This study was based on the inappropriate medication list developed by Zhan (2001). The list was limited to medications that should always be avoided or considered rarely appropriate regardless of dose or diagnosis. Patients with at least one prescription claim for an inappropriate medication were compared to patients without. Different patterns of inappropriate medication use were identified. Univariate and multivariate analyses were performed to examine characteristics associated with these patterns. **RESULTS:** 17.3% (8313/47,978) of the members filled at least one claim for a potentially inappropriate medication. 51.2% (4260/8313) of them filled multiple prescriptions for potentially inappropriate medications. The average number of prescribing providers was higher for members with inappropriate medications than for those without inappropriate medication claims (3.84 vs. 2.69,  $p < 0.0001$ ). Members with inappropriate medication claims filled an average of 45 medications per year (vs. 32 for other members,  $p < 0.0001$ ). Logistic regression showed that inappropriate medication use was associated with younger age (Odds ratio confidence interval: 0.978–0.985), female gender (CI: 0.612–0.683), number of prescribing providers (CI: 1.289–1.320), and use of home and community-based services —HCBS— (CI: 1.281–1.434). Members who were younger ( $p = 0.0018$ ), female ( $p = 0.0030$ ), dually eligible for Medicare and Medicaid ( $p < 0.0001$ ) and using HCBS ( $p < 0.0001$ ) were more likely to use multiple inappropriate medications. **CONCLUSIONS:** The rate of inappropriate medication use was similar to rates found in the literature but revealed the importance to develop